<Measurement of Casting Plate Tensile Elongation Percentage, Tensile Strength and Heat Deflection temperature (HDT)>

No. 1 test pieces according to JIS-K-7113 were cut out from the casting plate followed by measurement of tensile elongation percentage and tensile strength for n=5 based on the previously mentioned definitions of technical terms. In addition, load deflection load (Heat Deflection temperature) was measured in compliance with JIS-K-7207 using said casting plate. Measurements performed at room temperature were designated as "RT".

<Measurement of Barcol Hardness>

Values measured using the Model GYZ-J-935 soft material hardness meter based on the previously mentioned definitions of technical terms were expressed as HBI-B valves. In addition, values measured using the GYZ-J-934-1 hard material hardness meter were expressed as HBI-A values.

<Production of Intermediate Layer Resin Composition>

0.5 parts of curing accelerator (6% cobalt naphthenate), 0.1 part of curing agent (dimethylaniline), 2.3 parts of thixotropic agent (Aerosil #200 manufactured by Nippon Aerosil Co. Ltd.,), 77 parts of calcium carbonate (SS-80 having a mean particle size of 2.61 microns as calculated from specific surface area) as filler, and 3 parts of hollow filler (Dualite-M6017AE manufactured by Pierce & Stevens Co., which has a volume of 50%, and a diameter of 90 microns) were blended with respect to 100 parts of curable resin composition including a blend of 45 wt% of the epoxy acrylate resin composition of Synthesis Example (1) and 55 wt% of the unsaturated polyester resin composition of Synthesis Example (2) in the same manner as the resin composition for casting plate production to obtain an intermediate layer composition (1) by adjusting to the viscosity of 45.0 dPa.s and the thixotropy of 6.7.

1.0 part of 55% MEKPO were added to 100 parts of the resulting intermediate layer composition (1) and normal temperature gelation time was measured in compliance with section 4.8 of JIS-K-6901. The normal temperature gelation time of the intermediate layer composition (1) was 7.5 minutes.

(Production of Cured Gelcoat resin Layer)

A gelcoat resin composition in which 10 parts of pigment (Polyton White 107J manufactured by DAINIPPON INK AND CHEMICALS, INC.), 0.5 parts of 6% cobalt naphthenate and 1.0 part of curing agent (Parmec N manufactured by Nippon Oil Co., Ltd.) were blended with 100 parts of a clear gelcoat resin composition (POLYLITE GC-560 manufactured by DAINIPPON INK AND CHEMICALS, INC.) was sprayed onto a mold release treated glass plate (350 x 350 mm) to a thickness of 0. 4mm by means of the Model W-77 spray gun (manufactured by Iwata Tosoki Co., Ltd. and having a diameter of 2.5 mm), and then was cured until tack-free at normal temperature.

(Production of Cured Gelcoat resin Layer-Intermediate Layer)

Next, using the Model HLL-9000 spray gun (manufactured by Higashi-giken Co., Ltd.), an intermediate layer was sprayed onto the above gel coat to a thickness of 1.5 mm at a blend of 1.0 parts of curing agent (Parmec N manufactured by Nippon Oil Co., Ltd.), to 100 parts of the intermediate layer resin composition (1), and then was cured until tack-free at normal temperature.

(Formation of Fiber-Reinforced Plastic Layer/Production of Fiber-Reinforced Plastic Sheet)

1.0 part of curing agent (Parmec N manufactured by Nippon Oil Co., Ltd.) was blended with 100 parts of FRP lamination resin for hand lay up molding (POLYLITE FH-123-NM manufactured by DAINIPPON INK AND CHEMICALS, INC.) and FRP laminated formation was performed on the above intermediate layer with a glass fiber composition of MM' RMR.

M: 450 g/m^2 chopped strand mat (manufactured by NITTOBO CO., LTD.), glass content: 33 wt%

M': 600 g/m^2 chopped strand mat (manufactured by NITTOBO CO., LTD.), glass content: 33 wt%

R: 600 g/m^2 roving cloth (manufactured by NITTOBO CO., LTD.), glass content: 50 wt%

After curing for 72 hours at normal temperature, demolding was performed to obtain fiber-reinforced plastic molded article A comprised of the cured gelcoat resin layer (A),

the intermediate layer (B), and the fiber-reinforced plastic layer (C).

(Evaluation of Fiber-Reinforced Plastic Molded Article A)

<Evaluation of Surface Smoothness>

Surface smoothness immediately after demolding and one week later were measured for the resulting fiber-reinforced plastic molded article A using WaveScan Plus (manufactured by BYK-Gardner Co.). The GM-Tension value* calculated using WaveScan Plus (manufactured by BYK-Gardner Co.) was used as the indicator of surface smoothness.

*: The greater the GM-Tension value (max. 21), the better the surface smoothness.

Evaluation results are shown in Table 1.

<Evaluation of Cracking Resistance of Cured Gelcoat resin Layer>

Fiber-reinforced plastic molded article A was cut into widths of 25 mm and a bending test was performed using for the span a distance of 1.6 time (mm) the thickness. A load was applied from the laminated surface and evaluation was made based on the greater the amount of deflection when cracks occurred in the gelcoat resin layer, the better the resistance to cracking. Evaluation results are shown in Table 1 in the same manner as surface smoothness.

<Evaluation of Blistering Resistance>

Fiber-reinforced plastic molded article A was cut into squares measuring 10 cm on a side and a one-side boiling test was performed with hot water at 92°C. The gel coated surface was visually examined for the presence of blistering. According to the results, fiber-reinforced plastic molded article A provided with an intermediate layer according to the present invention was observed to demonstrate high blistering resistance in comparison with a molded article of a reference example. Although blisters formed after 50 hours of one-side boiling testing for the molded article obtained in a reference example, fiber-reinforced plastic molded article A obtained in Example 1 was not observed to form blisters even after 200 hours of one-side boiling testing.

Furthermore, although the measurement results of Example 1 are shown in Table 1, since the HDT (Heat Deflection temperature) value was about room temperature, it is